Social Futuring Index

Concept, Methodology and Full Report 2020

PART I

connext

SOCIAL **FUTURING** CENTER

Authors:
ZOLTÁN OSZKÁR SZÁNTÓ, PETRA ACZÉL, JÁNOS CSÁK, PÉTER SZABADHEGY, NUNO MORGADO, ESZTER DELI, JUDIT SEBESTÉNY, PÁL BÓDAY

BUDAPESTI CORVINUS EGYETEM

Social Futuring Index

Concept, Methodology and Full Report 2020

SOCIAL FUTURING INDEX
CONCEPT, METHODOLOGY AND FULL REPORT 2020

Authors: Zoltán Oszkár Szántó

Petra Aczél

János Csák

Péter Szabadhegy

Nuno Morgado

Eszter Deli

Judit Sebestény

Pál Bóday

ISBN 978-963-503-853-4

Responsible publisher: Corvinus University of Budapest,
Social Futuring Center,
8. Fővám tér, 1093, Budapest, Hungary

Budapest | 2020

Contents

PREFACE

This study aims to summarize in Part I the concept of Social Futuring (SF) and the methodology applied for the compilation of the Social Futuring Index (SFI). In Part II the 2020 SFI rankings of OECD countries and their detailed country SFI profiles are presented.

The project was undertaken by the Social Futuring Center (SFC) at Corvinus University of Budapest (CUB), Hungary, between 2017 and 2020. The normative, analytical and discursive frameworks of SF have been published recently both in Hungarian and in English: Aczél – Csák – Szántó (eds.): *Társadalmi jövőképesség – Egy új tudományterület bemutatkozása* (2018); Aczél – Csák – Szántó (eds.): *Society and Economy. Special issue on Social Futuring* (2018). The foundations of SFI were summarized in Szántó – Aczél – Csák – Ball: Foundations of the Social Futuring Index. *Információs Társadalom* (2019). The comparison of the SFI with eight similar global indices in terms of nature, society and economy is available in Kocsis: The Social Futuring Index (SFI) in the Context of Economy, Society and Nature – Comparing Nine Composite Indices Measuring Country Performance. SF-Working Paper Series No. 9/2020.

The SFI Project was carried out in collaboration with the following international and national partners: Barabási Lab (Boston MA, USA), Geopolitical Futures (Austin TX, USA), Institute of European Studies, Chinese Academy of Social Sciences (Beijing, China) and the Hungarian Central Statistical Office (HCSO, Budapest, Hungary).

Leading researchers and members of the SFI Project Board are János Csák, Petra Aczél, Zoltán Oszkár Szántó, and Péter Szabadhegy.

Research fellows who participated in developing the conceptual framework of SF and the foundations and calculation of SFI are: Bálint Ablonczy, Loránd Ambrus, Zsolt Andrási, Zoltán Ábrahám, Gyula Bakacsi, Chris Ball, Tamás Bartus, Pál Bóday, Tímea Cseh, Eszter Deli, Zsolt Főző, George Friedman, Róbert Iván Gál, Csaba Gilyán, Tamás Kocsis, Lajos Kovács, Marcell Kovács,

László G. Lovászy, Eszter Monda, Nuno Morgado, John D. Mueller, Dóra Perczel-Forintos, Árpád Rab, Márta Radó, Antónia Schwartz, Judit Sebestény, Balázs Szepesi, and Kinga Tóth.

We hereby express our gratitude to the following colleagues who contributed to the project with their presentations and comments at our earlier international conferences and workshops: György Alföldi, Zoltán Balázs, Albert-László Barabási, Márton Barta, Meredith Friedman, Judit Gossler, László György, Zsolt Hernádi, Kristóf Iván, Sándor Kerekes, Áron Kincses, András Lánczi, Bertalan Meskó, János Mika, Károly Mike, Erzsébet Nováky, Richárd Ongjerth, Lívia Pavlik, Péter Pillók, Huang Ping, Péter Ruppert, Judit Sass, János Setényi, Károly Takács, Csaba Török, Réka Várnagy, Ágnes Veszelszki, Gabriella Vukovich, and Chen Xin.

In the first part of this volume we outline the foundations and the basic logic of the SFI focusing on its main elements: the normative standards, the pillars, the dimensions and the indicators. We also summarize the methodology used to compile the SFI.

In the second part, the detailed SFI Report 2020 is presented starting with OECD countries' overall SFI rankings, followed by country rankings for each SFI normative standard as well as various country groupings. Thereafter, every OECD country's SFI profiles are detailed and the OECD countries' SFI clusters are outlined.

PART I

SOCIAL FUTURING INDEX – CONCEPT AND METHODOLOGY

OVERVIEW

The holistic concept of Social Futuring (SF) expresses the readiness of social entities (in the current case, OECD countries) in terms of their ability to preserve a good life for their members in a unity of order through the strategic management of future change.

The framework for a good life is provided by Peace & Security, Attachment, Care, and Balance what we call normative standards, with changes appearing that require strategic management in the fields of ecology-geopolitics, technology, socio-economy, and culture – which we call pillars. The degree of SF can be expressed through the quantification of the Social Futuring Index (SFI), the logic of which is derived from multidisciplinary conceptual foundations.

The SFI is conceptualized as the matrix of the above-mentioned normative standards and pillars. As a result, we measure the level of SF based on nine essential dimensions, and twenty-eight selected indicators, as illustrated in the following pyramid-like figure:

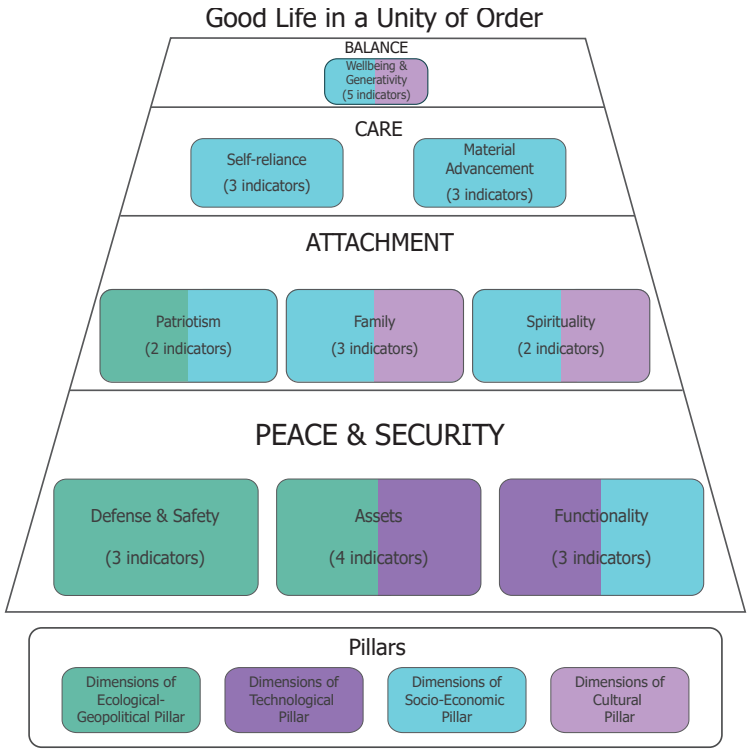

Figure 1:
Outlines of the Social Futuring Index

The SFI is a composite measure applied at a country level which was developed according to standard methodological and statistical routines. The indicators of the index were selected from a number of internationally recognized databases which are provided mostly by the OECD, World Bank, and World Value Survey.

I. INTRODUCING THE SOCIAL FUTURING INDEX (SFI)[1]

The study of resilience, future orientation, and future proofing (Aczél 2018) contributes new insights into how cultures differ and what parameters affect an individual's or a group's ability to engage the surrounding world over time. Social futuring aims to do the same while providing a normative framework for analysis. But, as a project, it is not merely an intellectual endeavor. The social futuring initiative set for itself the practical goal of developing the SFI, a composite measure applicable to countries comprising a number of dimensions and indicators related to four normative standards and four pillars. The indicators of the index are selected from a number of internationally recognized databases which are provided mainly by the OECD, World Bank, and World Value Survey. The main focus of the Index is a 'life in a unity of order,' which can be characterized by four normative standards; namely, Peace & Security, Attachment, Care (Material Advancement and Freedom) and Balance, as illustrated in Figure 2.

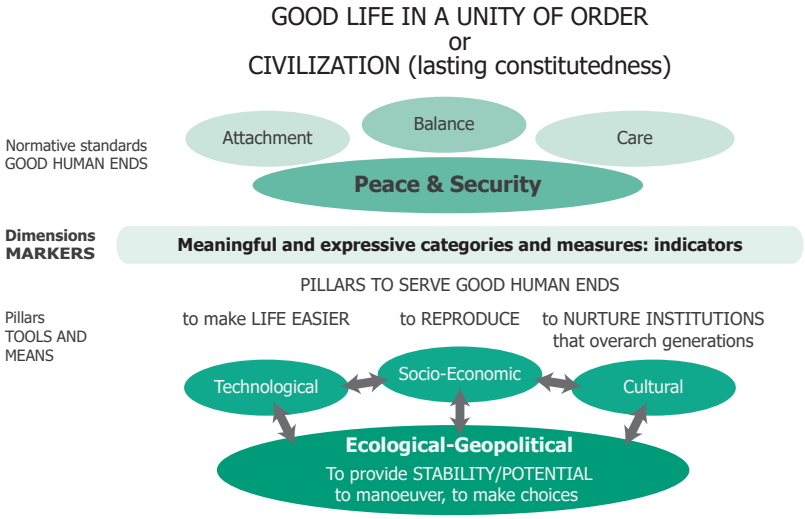

Figure 2:
The conceptual interrelations of the SFI's normative standards, dimensions and pillars

[1] The SFI was developed on the basis of the normative, discursive and analytical conceptual frameworks of SF. See for details Csák (2018); Aczél (2018), Monda (2018), Kocsis (2018), Szántó (2018) and Szántó et. al (2019). The present introduction to SFI was prepared using parts of the latter paper.

II. NORMATIVE STANDARDS

In order to operationalize the normative framework, the SF Project defined the following normative standards:[2]

1. **Peace & Security:** This is the minimum substance of a "unity of order". It enables social entities to reproduce, to raise children and to provide for themselves and others in a safe environment, furthermore to make predictions, to set goals and functionally influence their future operation based on fundamental assets.
2. **Attachment:** This is essential for healthy bodily, psychological, intellectual and spiritual human development. The most basic unit of Attachment is the Family, which determines the consciousness of what a "relationship, dignity, equity, authority and hierarchy are; what is good and bad, just and unjust; what is love, gift and reciprocity" (Csák 2018, 37). Family bonds are also essential in enabling Attachment to larger communities such as nations or religious groups.
3. **Care** (Material Advancement and Freedom): "The maintenance of material goods must entail the accepted practices of production, distribution and acquisition; use and disposition of private or public goods; extendable management skills; and, therefore an image of wealth and the nature of work" (Csák 2018, 37-38). Freedom is the ability of self-determination and self-reliance to actualize one's potential and capacity to control one's own fate.
4. **Balance:** This is a real and perceived social state that is free from extreme social differences and reflects the importance of responsibility across generations. Balance is the precondition of good life, wellbeing and generativity, by which people can be free from unproductive societal comparisons (such as envy).

These four normative standards follow each other in a hierarchical order: without the minimum level of Peace & Security, there can be no Attachment, Care and Balance, without the minimum level of Attachment, there can be no Care and Balance, and without the minimum level of Care, no Balance is possible.

[2] See Csák (2018) for greater detail.

While the ultimate aim is to develop generally applicable indices for social entities of all types and sizes, the social futuring project started by focusing on developing a country-level index for three practical reasons. First, a country is about the largest social entity that has a defined leader (the government or state) that represents the constituent members, generally through democratic institutions. Second, data is available for many countries, allowing the first indices to be constructed from current data sources rather than requiring the research project to solve two problems at once: constructing an index as well as generating new data. Third, in the same way that the concept of social futuring needed to define itself in comparison to other concepts or approaches in the social sciences, so too must a new index find its home among other existing indices. Therefore, starting with countries that are part of other currently existing indices allows the SFI to distinguish itself by highlighting the differences from and similarities to such other regularly published indices.[3]

The outlines of the SFI are presented in Figure 2 to allow further conceptualization of the SFI and its pillars. According to this logic, we can differentiate and define the following four pillars:

- Ecological-Geopolitical,
- Technological,
- Socio-Economic, and
- Cultural.

[3] This last reason also allows us to test statistically for the difference between the SFI and other indices, adding an objective element to the claim that the SFI is unique. As a first attempt, see: Kocsis (2020). Kocsis compared the SFI with eight other country-level indices, namely with the Better Life Index (BLI), Change Readiness Index (CRI), Global Resilience Index (GRI), Human Development Index (HDI), Happy Planet Index (HPI), Inclusive Development Index (IDI), Sustainable Development Goals Index (SDG), and the World Happiness Index (WHI) from three different perspectives, namely, Nature, Society, and Economy. As a general result of this comparison, he concluded that SFI represents a well balanced, fundamentally „social"-based composite for both decision makers and those interested in the concept of social futuring. Thus, both the concept of social futuring itself and the SFI fill in the gaps in the economic-social-nature categorization of the world. Among the major composites known today, the SFI stands out primarily for its social (human) emphasis – while also taking into account both economic and nature related aspects in a proportionate way.

III. PILLARS

1. The **Ecological-Geopolitical pillar** captures aspects of a social entity such as its basic assets (energy, water, land, etc.) and geopolitical positions without which it would not have resources to maintain itself and provide its members with stability and freedom of choice.

2. The **Technological pillar**, by making life easier, assures the undisturbed development of a social entity's general functionality.

3. The **Socio-Economic pillar** includes the material (capital, labor, unemployment, schooling and GDP, etc.) and social factors (family, fertility, work-life balance, inequalities, etc.) of the reproduction of human life.

4. The **Cultural pillar** relates to the factors of religiousness and traditions, focusing on the role of social institutions that overarch generations.

IV. PYRAMID & DIMENSIONS

As a result, the matrix of the four normative standards and the four pillars combined defines the nine dimensions of the SFI.[4]

We classified the nine dimensions according to two aspects: (1) the basic forms of SF such as (i) *proactive*, when social entities are able to influence future changes directly in order to deploy their long-term SF potential, (ii) *active*, when they are able to improve their functional operation by exploiting opportunities resulting from expected changes, and (iii) *reactive*, when in order to maintain their way of life, they can manage the risks that may stem from future changes; (2) whether the phenomena and processes inherent in the different dimensions can be influenced by targeted policy measures (*policy sensitivity*, *yes/no*).

The nine essential dimensions can be defined in the following way:

1. **Defense & Safety:** The ability and sense of duty to create and maintain the integrity of a country's inner and outer order.
2. **Assets:** The creation and maintenance of critical and strategical resources.
3. **Functionality:** The systematic and creative deployment of natural and human-made infrastructure in order to create competitive foundations.
4. **Patriotism:** The ability to translate family and interpersonal attachments into belonging to greater communities such as nation.
5. **Family:** The creation of primary bonds between parents, children and close kin.
6. **Spirituality:** The transcendent efforts (like religion and tradition) that support the long-term subsistence of a social entity.

[4] The dimensions are concepts that can be identified in the intersection of the normative standards and the pillars. They indicate human, environmental and instrumental phenomena, abilities and capacities that interpret the meaning of the given normative standard. From the theoretically possible sixteen (4 by 4) dimensions we selected the nine essential ones.
The pillars, as the means of serving good human ends, are indicated by different colors in *Figure 2.*, depending on their appearance in the different dimensions by themselves, or with another pillar.
The height of the four normative standards indicates their different weights in calculating the SFI, namely: 40%, 30%, 20% and 10%, reflecting their hierarchical importance. Furthermore, we consider Assets and Family to be two key dimensions which deserve double weighting. For more details on the methods of SFI calculation see sections V-VI. of Part I.

7. **Self-reliance:** Members of a social entity – using their abilities – exploit their opportunities in order to provide wellbeing for themselves and their loved ones.
8. **Material Advancement:** The provisioning and maintenance of material existence without jeopardizing next generations' room to maneuver.
9. **Wellbeing & Generativity:** The management of extreme social differences, the harmonization of reality and expectations, reaching contentment by avoiding the use of opiates and promoting others' development.

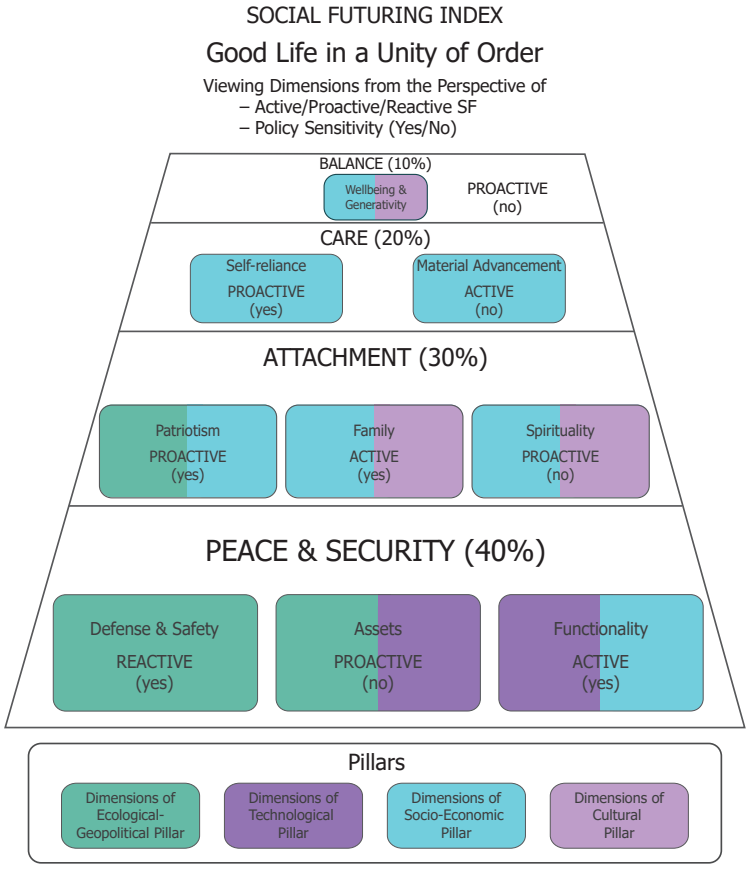

Figure 3:
The normative standard based matrix structure of the SFI

V. METHODOLOGY USED TO COMPILE THE SFI[5]

The SFI is a composite index of sub-indexes comprising a hierarchical indicator system based on the conceptual framework defined by the Social Futuring Initiative. Simply put, the SFI is a weighted average of carefully selected indicators, which best capture the elements of Social Futuring.

The SFI comprises 28 indicators which were selected with the assistance of an expert panel. All indicators are normalized – after outliers were handled – on a scale of 0 to 100. The indicators are weighted and aggregated according to the structure of the SFI framework.

In order to best grasp and convey the concept of the indicator, a hierarchical structure was selected from a number of indicator system structures. The hierarchical structure makes it possible to create sub-indicators at different levels to examine the contexts of the conceptual framework, which makes the analysis even deeper. In general, such indicator systems are the most suitable choice for the better presentation of complex, multi-dimensional phenomena.

In order to connect the normative standards with the pillars defined in the overall framework, definitions were prepared to describe the phenomena of nine essential paired intersections of the two aspects, based on which appropriate indicators could be selected.

V.1. Selecting variables

An expert panel with specialists from different academic disciplines and statistics selected the indicators and compiled the first set of indicators that best suited the written definitions. The selection process of the indicators followed the basic principle that indicators had to:

- be measurable/available,
- be accessible from official, publicly available sources,

[5] All data and methods used during the compilation of the SFI 2020 are available in detail on the SFI website to increase the replicability of the methodological procedures.

- have at least OECD-country coverage,
- be without or have limited overlap with other indicators, and
- be associated with a measurable range.

Several workshops served to finalize and fine tune the indicator set to avoid overlaps, as well as to maintain a balance between the different elements of the framework. The first set covered around 120 indicators, which was reduced to the final 28 essential indicators, which are deemed relevant and meet the above-mentioned basic principles.

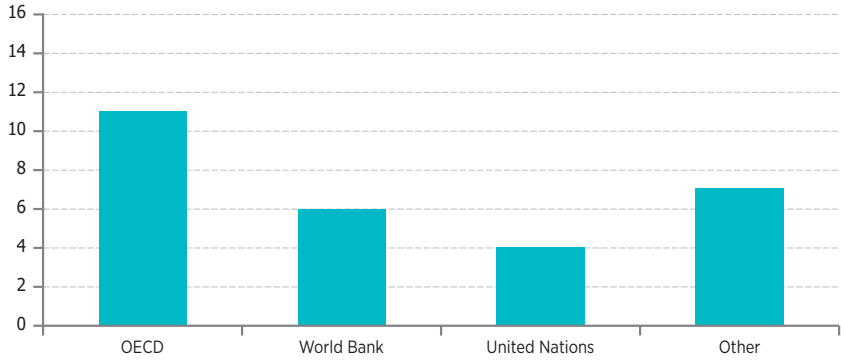

Figure 4:
Sources of indicators

Three types of indicators were chosen:

1. *Relative indicators:* relative indicators are obtained by dividing an indicator by another indicator- in order to maintain comparability between countries. The basic indicators used in the denominator are GDP, population or others such as the number of households or area.
2. *Scales:* some indicators are defined to be measured along a predefined range.
3. *Product (or mix) indicators:* to measure both temporal change and the current level of a given phenomena. The indicator is a product of two basic indicators: the percentage change in the phenomenon over time and the percentage deviation of the current value from the average.

For each indicator, the most recent data available was used. (Available until 1st May 2020). In most cases, 2017-2018 data were available. In some cases, the model relies on earlier data.

For each indicator, the direction (positive or negative) was determined to the concept of social futuring, based on its relevance.

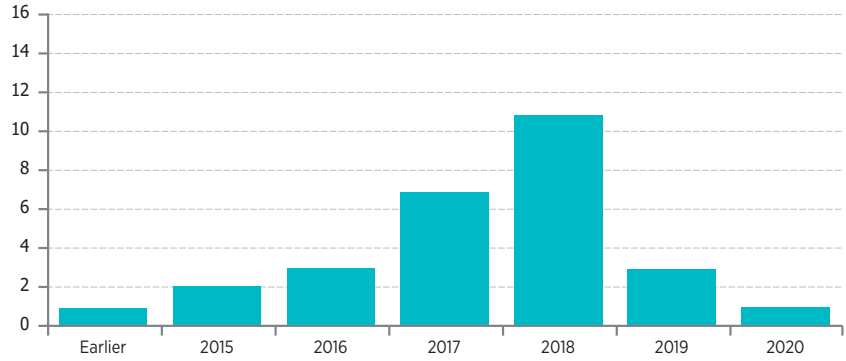

Figure 5:
Reference years of indicators

V.2. Imputation

Although the selection of indicators was based on maximum country coverage, in the case of some indicators, data from a few countries were either missing or significantly different in time (4-5 years) from other countries. In these cases, the data were usually imputed using other reliable sources or in some cases replaced with the value of a similar country. Replaced data represent only 2.5 percent of the total data used.

V.3. Handling outliers

Outliers are individual values that fall outside of the overall pattern of a data set. Outliers were filtered out before data were normalized, since they could have significantly affected normalized values, especially when applying the min-max approach. The interquartile range rule was

used for detecting the presence of outliers. The interquartile range (IQR) is calculated by subtracting the first quartile (Q1) from the third quartile (Q3). According to the normal rule, if an individual value is higher than Q3+1.5*IQR or smaller than Q1-1.5*IQR, the data is considered as an outlier. Outliers are replaced with Q3+1.5*IQR or Q1-1.5*IQR

V.4. Normalization

Normalization is required prior to any data aggregation, as the indicators in a data set often have different measurement units or orders of magnitude. Different normalization and aggregation techniques were tested (min-max, standardization, ranking, above-below mean, categories). The min-max method was chosen because it best met the needs of the model in relation to the compilation of the hierarchical composite indicator. There are no negative numbers, or there is no problem with handling 0, thus additivity is retained.

V.5. Weighting and aggregation

Weights were determined by expert consensus. They were defined on the basis of the conceptual framework, taking into account the importance of normative standards. Within the normative standards, two dimensions (Assets and Family) were given higher weights within its normative standard. All indicators within each dimension were given equal weights.

Aggregation was based on weights and normalized indicator values. The final SFI and/or any sub-indicator is the weighted sum of the normalized indicator values. Also, the composite indicator at any given level (dimension or normative standard) can be built from the sub-indicators that make it up. This greatly facilitates the analysis of the effect of the indicator composition.

Normative standards	Weights by normative standard	Dimensions	Weights by dimension	Number of indicators within dimension	Weights by indicator
Peace & Security	40	Defense & Safety	10	3 indicators	3.33
		Assets	20	4 indicators	5.00
		Functionality	10	3 indicators	3.33
Attachment	30	Patriotism	7.5	2 indicators	3.75
		Family	15	3 indicators	5.00
		Spirituality	7.5	2 indicators	3.75
Care	20	Self-reliance	10	3 indicators	3.33
		Material Advancement	10	3 indicators	3.33
Balance	10	Wellbeing & Generativity	10	5 indicators	2.00

Table 1:
Weighting of the components of the SFI

Composite indicators can be interpreted as the weighted sum of the normalized indicator values (this makes it possible to examine the weight of sub-indicators within higher-level indicators), or on a scale from 0 to 100.

V.6. Clustering

The data were analyzed and compared using several methods for the cluster analysis.

For clustering we used the k-means algorithm, which is one of the most popular clustering algorithms. In the k-means algorithm, a set of data is classified using a certain number of clusters (k clusters) which are initialized a priori. This defines k centroids, one for each cluster and then considers the data objects belonging to the given data set and associates these data objects with the closest centroid. Euclidean distance is applied to determine the distance between data objects and the centroids.

To examine the relationship and similarity of the countries, we calculated the clusters (for clusters between 2 and 10) at each indicator level (indicator, dimension, and normative standard).

VI. INDICATORS

INDICATORS USED FOR NORMATIVE STANDARD PEACE & SECURITY – DEFENSE & SAFETY DIMENSION

(reactive, policy sensitivity: yes)

1. Political stability and absence of violence or terrorism (direction: positive, weight: 3.33%)

Definition: Political stability and the absence of violence or terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. The estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.

Unit of measure: index (-2.5 to 2.5)

Source of data: WB, http://info.worldbank.org/governance/wgi/Home/Reports

2. Robbery (direction: negative, weight: 3.33%)

Definition: Robbery is a property crime that involves the use of violence or threat of violence. Theft of property from a person, overcoming resistance by force or threat of force. Robbery included muggings, bagsnatching, and theft with violence.

Unit of measure: per 100,000 population

Source of data: United Nations Office on Drugs and Crime (UNODC) https://dataunodc.un.org/crime/robbery

3. Military expenditure (direction: positive, weight: 3.33%)

Definition: Military expenditure data from SIPRI are derived from the NATO definition, which includes all current and capital expenditure on armed forces, including peacekeeping forces; defense ministries and other government agencies engaged in defense projects; paramilitary forces, if these are judged to be trained and equipped for military operations; and military space activities.

Unit of measure: percent of GDP

Source of data: WB, https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS

INDICATORS USED FOR PEACE & SECURITY NORMATIVE STANDARD – ASSETS DIMENSION
(proactive, policy sensitivity: no)

4. Ecological balance (direction: positive, weight: 5%)

Definition: The difference between a population's Ecological Footprint and a country's biocapacity. If a country's demand exceeds its biocapacity, it has an ecological deficit. If a country's biocapacity exceeds its Ecological Footprint, it has an ecological reserve.

Unit of measure: global hectare

Source of data: Global Footprint Network, http://data.footprintnetwork.org/#/exploreData

5. Arable land (direction: positive, weight: 5%)

Definition: Arable land (hectares per person) includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land dedicated to market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded.

Unit of measure: hectares per person

Source of data: WB, http://wdi.worldbank.org/table/3.1#

6. Net energy imports (direction: negative, weight: 5%)

Definition: Net energy imports are estimated as energy use minus production, both measured in oil equivalents.

Unit of measure: percent of energy use

Source of data: WB, http://wdi.worldbank.org/table/3.8

7. Renewable water resources (direction: positive, weight: 5%)

Definition: Total annual actual renewable water resources per inhabitant [Total renewable water resources per capita] = [Total renewable water resources]*1000000/[Total population].

Unit of measure: cubic meter/inhabitant/year

Source of data: FAO, http://www.fao.org/nr/water/aquastat/data/query/index.html

INDICATORS USED FOR PEACE & SECURITY NORMATIVE STANDARD – FUNCTIONALITY DIMENSION
(active, policy sensitivity: yes)

8. High-technology exports (direction: positive, weight: 3.33%)

Definition: High-technology exports are products with high R&D intensity, such as those associated with aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery. (Data are given as percentages of manufactured exports). Because industrial sectors specializing in a few high-technology products may also produce low-technology products, the product approach is more appropriate for international trade.

Unit of measure: percent of manufactured exports

Source of data: WB, https://data.worldbank.org/indicator/TX.VAL.TECH.MF.ZS

9. Road density (per capita) (direction: positive, weight: 3.33%)

Definition: Road density is the ratio of the length of the country's total road network to the country's population. The road network includes all roads in the country: motorways, highways, main or national roads, secondary or regional roads, and other urban and rural roads. The Global Roads Inventory Project is a harmonized global dataset of approximately 60 geospatial datasets on road infrastructure. The resulting dataset covers 222 countries and includes over 21 million km of roads, which is two

to three times the total length included in the currently best available country-based global roads datasets.

Unit of measure: km per capita

Source of data: Global Roads Inventory Project + own calculation, https://stats.oecd.org/Index.aspx?DataSetCode=ITF_INDICATORS

10. Households broadband internet connection (direction: positive, weight: 3.33%)

Definition: Household broadband access provides a measure of the uptake of broadband technology by households. It refers to the share of households that have purchased subscriptions to fixed-line or mobile broadband services.

Unit of measure: percent of households

Source of data: OECD, https://goingdigital.oecd.org/en/indicator/13/

INDICATORS USED FOR ATTACHMENT NORMATIVE STANDARD – PATRIOTISM DIMENSION
(reactive, policy sensitivity: no)

11. Persons living abroad (direction: negative, weight: 3.75%)

Definition: Proportion of (estimates of) the international migrant (mid-year) stock, by origin and the total mid-year population (obtained from World Population Prospects: The 2017 Revision).

Unit of measure: percent of population of origin country

Source of data: UN, https://www.un.org/en/development/desa/population/migration/data/estimates2/estimates19.asp

12. Registered voters who actually voted (direction: positive, weight: 3.75%)

Definition: The total number of votes cast (valid or invalid) divided by the number of names on the electoral register, expressed as a percentage.

Parliamentary Elections: The parliamentary elections displayed in the Voter Turnout database are elections to the national legislative body of a country or territory. When the legislative body has two chambers, only the second (lower) chamber is included. If elections are carried out in two rounds (using the Two-Round System TRS), only the second election round is included.

Unit of measure: percent

Source of data: IDEA, https://www.idea.int/data-tools/question-view/521

INDICATORS USED FOR ATTACHMENT NORMATIVE STANDARD – FAMILY DIMENSION
(active, policy sensitivity: yes)

13. Employees working very long hours - work-life balance (direction: negative, weight: 5%)

Definition: Percentage of all employees usually working 50 hours or more per week.

Unit of measure: percent

Source of data: OECD, https://stats.oecd.org/Index.aspx?DataSetCode=BLI#

14. Value of family benefits (direction: positive, weight: 5%)

Definition: Total family benefits for a two-parent, dual-earner family for two children with a youngest child aged six, as % of average full-time earnings.

Unit of measure: percent of average full-time earnings

Source of data: OECD, https://stats.oecd.org/Index.aspx?QueryId=79865#

15. Single person households (direction: negative, weight: 5%)

Definition: Share of single person households among all households.

Unit of measure: percent

Source of data: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvph02&lang=en

INDICATORS USED FOR NORMATIVE STANDARD ATTACHMENT – SPIRITUALITY DIMENSION
(proactive, policy sensitivity: no)

16. Important to follow traditions and customs (direction: negative, weight: 3.75%)

Definition: On a scale from 1 to 6, where 1 means 'very much like me' and 6 means 'not at all like me'.

Unit of measure: scale 1 to 6

Source of data: World Values Survey, http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp

17. Self-reported religiousness (direction: positive, weight: 3.75%)

Definition: The share of those who claimed to be religious to the question. Are you: (1) A religious person, (2) Not a religious person, (3) A dedicated atheist?

Unit of measure: percent

Source of data: World Values Survey, http://www.worldvaluessurvey.org/WVSOnline.jsp – http://www.europeansocialsurvey.org/

INDICATORS USED FOR NORMATIVE STANDARD CARE – SELF-RELIANCE DIMENSION
(proactive, policy sensitivity: yes)

18. Mean years of schooling (direction: positive, weight: 3.33%)

Definition: Average number of years of education received by people ages 25 and older, converted from education attainment levels using official durations for each level.

Unit of measure: years

Source of data: UNDP, http://hdr.undp.org/en/indicators/103006

19. Unemployment rate (direction: negative, weight: 3.33%)

Definition: The unemployment rate is the number of unemployed people as a percentage of the labor force, where the latter consists of the unemployed plus those in paid or self-employment. Unemployed people are those who report that they are without work, but that they are available for work and that they have taken active steps to find work in the last four weeks.

Unit of measure: percent

Source of data: OECD, https://stats.oecd.org/Index.aspx?DataSetCode=LFS_SEXAGE_I_R

20. Life expectancy (mix) (direction: positive, weight: 3.33%)

Definition: Life expectancy at birth is defined as how long, on average, a newborn can expect to live, if current death rates do not change. The indicator is calculated as the product of the long term change (2010 to 2017) and the distance to the maximum of the current value.

Unit of measure: percent

Source of data: OECD, https://stats.oecd.org/sdmx-json/data/DP_LIVE/.LIFEEXP.../OECD?contentType=csv&detail=code&separator=comma&csv-lang=en

INDICATORS USED FOR NORMATIVE STANDARD CARE – MATERIAL ADVANCEMENT DIMENSION
(active, policy sensitivity: no)

21. Household expenditure (direction: positive, weight: 3.33%)

Definition: Household spending is the amount of final consumption expenditure made by resident households to meet their everyday

needs, such as food, clothing, housing (rent), energy, transport, durable goods (notably cars), health costs, leisure, and miscellaneous services. The indicator shows the latter's expenditure relative to GDP.

Unit of measure: percent of GDP

Source of data: OECD, https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE5

22. Child relative income poverty rate (direction: negative, weight: 3.33%)

Definition: The percentage of children (0-17 year-olds) with an equivalized household disposable income (i.e. an income after taxes and transfers adjusted for household size) below the poverty threshold. The poverty threshold is set here at 50% of the median disposable income in each country.

Unit of measure: percent of population 0-17 years old

Source of data: OECD, http://www.oecd.org/els/soc/CO_2_2_Child_Poverty.xlsx

23. GDP/capita (mix) (direction: positive, weight: 3.33%)

Definition: Gross domestic product (GDP) is the standard measure of value added created through the production of goods and services in a country during a certain period. The indicator is calculated as the product of long term change (2010 to 2017) and the distance from the OECD average of the current value in USD.

Unit of measure: percent

Source of data: OECD, https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE1

INDICATORS USED FOR NORMATIVE STANDARD BALANCE – WELLBEING & GENERATIVITY DIMENSION
(proactive, policy sensitivity: no)

24. Transition of educational attainment level from parents to current adults (direction: positive, weight: 2%)

Definition: Transition from the previous generation – from the pre-primary, primary and lower secondary education of parents to tertiary education.

Unit of measure: percent

Source of data: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?lang=en&dataset=ilc_igtp01

25. Fertility (mix) (direction: positive, weight: 2%)

Definition: The total fertility rate in a specific year is defined as the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates. The indicator is calculated as the product of the long term change (2010 to 2017) and the distance to the OECD average of the current value.

Unit of measure: percent

Source of data: OECD, https://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH_DEMR&lang=en#

26. Age dependency (direction: negative, weight: 2%)

Definition: The proportion of dependents (people younger than 15 or older than 64) to the working-age population (15-64).

Unit of measure: percent of working-age population

Source of data: WB, https://data.worldbank.org/indicator/SP.POP.DPND

27. Antidepressant usage (direction: negative, weight: 2%)

Definition: Antidepressant drugs consumption in DDD. Defined daily dose (DDD) is the assumed average maintenance dose per day for a drug used following its main indication for an adult.

Unit of measure: Defined daily dosage per 1 000 people per day

Source of data: OECD, Health statistics, http://dx.doi.org/10.1787/888933605540

28. Gini-coefficient (income) (direction: negative, weight: 2%)

Definition: The Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus, a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

Unit of measure: 0-100

Source of data: OECD, https://data.oecd.org/inequality/income-inequality.htm

BIBLIOGRAPHY

Aczél, Petra. "Social Futuring – A Discursive Framework" *Society and Economy* 40, Issue S1 (2018): 47–75. https://doi.org/10.1556/204.2018.40.s1.4.

Csák, János. "Social Futuring – A Normative Framework." *Society and Economy* 40, Issue S1 (2018): 21–45. https://doi.org/10.1556/204.2018.40.s1.3

Kocsis, Tamás. "Finite Earth, Infinite Ambitions: Social Futuring and Sustainability as Seen by a Social Scientist." *Society and Economy* 40, Issue S1 (2018): 111–142. https://doi.org/10.1556/204.2018.40.S1.6

Kocsis, Tamás. "The Social Futuring Index (SFI) in the Context of Economy, Society and Nature: Intenscoping Nine Composite Indices Measuring Country Performance." 2020. (Working paper series 9/2020)

Monda, Eszter. "Social Futuring in the Context of Futures Studies." *Society and Economy* 40, Issue S1 (2018): 77–109. https://doi.org/10.1556/204.2018.40.S1.5

Szántó, Zoltán O. "Social Futuring – An Analytical Conceptual Framework." *Society and Economy* 40, Issue S1 (2018): 5–20. https://doi.org/10.1556/204.2018.40.S1.2

Szántó, Zoltán O. Petra Aczél, János Csák, Chris Ball "Foundations of the Social Futuring Index" *Információs Társadalom*, 19(4), 115–132, 2019. https://dx.doi.org/10.22503/inftars.XIX.2019.4.8All